

A Case Report on Core Muscles Training for Knee Osteoarthritis Through Core Muscles Activations and Gait Analysis

ABSTRACT

Knee osteoarthritis (OA) is a chronic joint disease that can affect all ages, but it is more common in the elderly. Pharmacological and non-pharmacological treatments have been invented evolutionarily over the years to halt this disease. Exercise is one of the first-line treatments for knee OA as well as for prevention. This case study features a 47-year-old man who has grade IV bilateral knee OA and has never had any surgery and takes fish oil daily as a supplement. His walking pattern was significantly impacted by the chronic knee discomfort he had in both legs. Thus, the walking gait of this patient was analyzed together with core muscle activation before and after two weeks of core resistance exercise intervention. The knee pain score was assessed using the Western Ontario and McMaster Universities Index (WOMAC). The outcomes of this research depict that core resistance training has the potential to be used as an alternative, non-surgical and non-pharmacological treatment for a patient with knee OA.